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ABSTRACT

This study examined the impact of variables related to competence and identity as protective factors in a group of at-risk dropouts and at-risk graduates of high school. Participants consisted of 99 at-risk students (35 females and 64 males) drawn from a continuation high school in an urban school district and 24 high school students (9 female and 15 males) from a university summer program for academically-talented youth. Subjects fell into one of five groups: past dropouts; predicted dropouts; predicted graduates; past graduates; and students not at risk for dropping out. Predicted graduates and dropouts completed the questionnaires at the school site. Confirmed dropouts, graduates and not-at-risk students completed the questionnaires on their own time. Results indicated that students at the continuation high school were clearly at risk based on the risk factors as compared to the comparison group. Protective factors related to Erikson's conception of anticipation of success (hope in the future, anticipation of being in a good job by age 30) and the importance of going to college contributed significantly to the prediction of dropout/graduate status beyond the prediction made by risk factors alone. Using a prospective methodology, a hopeful future significantly predicted dropout versus graduate status for participants who were equally at risk. Contains 27 references.) (Author/AA)

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The Risk-Resiliency Paradigm in Research on Dropping Out

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Abstract

This study examined the impact of variables related to competence and identity as protective factors in a group of at-risk dropouts and at-risk graduates of high school. Participants consisted of 123 students in an urban area. At-risk status was first determined by assignment to a continuation high school and then by comparison with a group of students who were not at risk for dropping out on self-reported risk factors from the research literature. Results indicated that 1) students at the continuation high school were clearly at risk based on the risk factors as compared to the comparison group. Protective factors related to Erikson's conception of anticipation of success (hope in the future, anticipation of being in a good job by age 30) and the importance of going to college contributed significantly to the prediction of dropout/graduate status beyond the prediction made by risk factors alone. Further, using a prospective methodology, a hopeful future significantly predicted dropout versus graduate status for participants who were equally at risk.

The Risk-Resiliency Paradigm in Research on Dropping Out

The risk-resiliency paradigm comes out of clinical work on coping with stress, psychopathology, and other negative life events (Garmezy, 1987; Murphy, 1987; Murphy & Moriarty, 1976; Rutter, 1984, 1985, 1987; Werner, 1987, 1989,1990; Werner & Smith, 1982). In this approach, the concepts of risk factors, vulnerability, resilience and protective factors provide us with a way of structuring, studying, and interpreting the world.

Risk factors are defined as "biological or psychosocial hazards that increase the likelihood of a negative developmental outcome" (Werner, 1990, p. 97). Vulnerability is defined as "an individual's susceptibility to a negative outcome" and vulnerability is believed to increase as the number of risk factors increases (Werner, 1990). Resilience is used to describe individuals who are at risk (have many risk factors) for a particular negative outcome but do not develop the predicted outcome. Protective factors are both individual (e.g., cognitive abilities, temperament) and environmental (e.g., family and school) characteristics that "ameliorate or buffer a person's response to constitutional risk factors or stressful life events" (Werner, 1990, p. 98), and "are associated with a lower than expected incidence of negative outcome...[or] better than expected outcomes" (Masten & Garmezy, 1985, p. 14).

Risk Factors for Dropping Out

A number of studies have identified characteristics that distinguish dropouts from graduates (Cage et al., 1984; Ekstrom et al., 1986; Fine, 1986; Lambert, 1965; Lloyd, 1978; Peck, Law & Mills, 1987; Rumberger, 1983; Self, 1985; Stern, Catterall, Alhadeff, & Ash, 1985; Wehlage & Rutter, 1986). Although most of these studies were not conducted from an explicit risk-resiliency viewpoint, they can be interpreted using that model. From this perspective, the characteristics associated with dropping out can be labeled risk factors, and these risk factors fall into four major categories: Academic, Behavioral, Familial-Demographic, and Social-Emotional. A number of

authors (Kagan, 1990; Wehlage, 1989; Wehlage & Rutter, 1986: Weinstein, 1989) propose School Characteristics as a fifth factor worthy of consideration.

Protective Factors and Resilience Against Dropping Out

Werner and her colleagues (Werner, 1987, 1989, 1990; Werner, Bierman & French, 1971; Werner & Smith, 1977, 1982) have been reporting on a longitudinal study using the risk-resiliency framework for the last two decades. Although they were looking at the overall development of their at-risk group, they included school failure and learning problems among their list of negative outcomes. Werner found that resilient adolescents were characterized by "a pronounced social maturity and strong sense of responsibility,...[and a belief that they] can exert considerable control over their fate" (Werner, 1990, p. 104). Werner's work suggests that psychosocial variables like competence and identity (what will my role in society be (Erikson, 1950)) play an important role in protection against social ills.

In this study students who were at risk due to educational assignment (sent to a continuation school) were compared to students who were not at risk (participants in a program for academically talented youth). Past graduates and students currently attending but predicted to graduate made up the resilient group with past dropouts and predicted dropouts making up the non-resilient group.

Hypotheses

1. It was hypothesized that students in the at-risk groups would have significantly higher scores on individual risk factors than the students in the not-at-risk group.
2. It was hypothesized that protective factors would significantly predict membership in the resilient and non-resilient cohorts as defined by graduate/nongraduate status and school personnel ratings.
3. It was hypothesized that protective factors would significantly predict membership in the resilient and non-resilient groups that were equally at risk.

Method

Participants

The participants consisted of 99 at-risk students (35 females and 64 males) drawn from a continuation high school in a urban school district and 24 high school students (9 females and 15 males) from a university summer program for academically-talented youth. Subjects fell into one of five groups: Group 1 - 24 past dropouts (mean age = 18.74); group 2 - 24 predicted dropouts (mean age = 17.29); group 3 - 27 predicted graduates (mean age = 17.68); group 4 - 24 past graduates (mean age = 19.25); and group 5 - 24 students not at risk for dropping out (mean age = 16.39).

Instruments

Risk Factors. Continuation school assignment was hypothesized to be a marker for at-risk status. Individual risk factors included 1) academic risk factors (grade point average, self-rating of amount of homework completed), 2) behavioral risk factors (self-ratings of conduct problems, self-rating of "cutting" days), 3) social-emotional risk factors (number of days spent with friends during the school week), and 4) school risk factors (perceived school climate).

Protective Factors. Protective factors consisted of perceived scholastic competence (Harter, 1988), the importance of attending college, global self-esteem (Rosenberg, 1965), and anticipation of future success (anticipation of a good job, the future looks dismal).

Variables were either individual items or composites and most used Likert-scale responses. All composites had acceptable reliabilities ranging from 0.75 for scholastic competence to 0.89 for perceived school climate.

Procedure

Predicted graduates and dropouts completed the questionnaires at the school site. Confirmed dropouts, graduates, and not-at risk students completed the questionnaires on their own time. The researcher was available to answer questions and all subjects were paid for participation.

Results and Discussion

All five groups were compared on the six risk factors using multivariate analysis of variance (MANOVA) procedures followed by post-hoc comparisons. Significant differences were found between the not-at-risk group and at least one of the four at-risk groups on all of the risk factors (see Table 1-A and Figure 1), supporting Hypothesis 1. Differences among the at-risk groups occurred on four of the risk factors. Although the predicted graduates and predicted dropouts were similar in general profile (they did not differ significantly on any risk factors), the predicted dropouts' specific profile more closely paralleled the profile of the confirmed dropouts, whereas the predicted graduates' profile paralleled the profile of the confirmed graduates (see Table 1-B).

As with the risk factors, multivariate analysis of variance procedures followed by post hoc comparisons were used to examine which protective factors differed among the four at-risk groups. Two of the protective factors (future looks dismal, anticipation of a good job) showed significant group differences and a third variable (college importance) approached significance.

The second hypothesis called for the classification of resilient and non-resilient at-risk groups. Using a hierarchical discriminant function procedure which enters first into the equation the variable that maximizes the smallest F ratio between groups, a discriminant function analysis was calculated using the protective factors as predictors of resilient and non-resilient status. The protective factors were used to predict the combined resilient (past and predicted graduates) and non-resilient groups (past and predicted dropouts). The predictors used in each function were the three factors that differed between the resilient and non-resilient at-risk groups (college importance, anticipation of a good career, future looks dismal) (see Figure 2).

Prediction of Resilient and Non-Resilient Status

All three protective factors were entered into the function used to discriminate between all the resilient participants (past and predicted graduates) and the non-resilient participants (those who had

dropped out or were predicted to dropout). The function was significant and correctly classified 70% of the students into resilient and non-resilient groups. Two-thirds (65%) of the resilient group and three quarters (77%) of the non-resilient group were correctly classified by the three protective factors. Note that all three predictors (the future looks dismal (.8325), anticipation of good career (.5094), and college importance (.4245)) reflect expectations of positive future outcomes.

Prediction of Resilient/Non-Resilient Status Based on Equal Risk

A discriminant function analysis using the three protective factors as predictors was also calculated with the post-prediction dropouts and graduates. These were participants who were in the predicted dropout and graduate groups at the time of data collection and who graduated or dropped out two years later. These two groups did not differ significantly from each other on any of the risk factors. Two of the three predictors were entered into the function, including "The future looks dismal" (-.8856) and "college importance" (.1608). This function was also significant and correctly classified 75% of the group members (80% of the resilient group and 70% of the non-resilient group).

Summary of Findings

1. Continuation school assignment is a marker of risk status and is reflected in self-reported differences on individual risk factors.
2. Variables related to expectations of success in the future act as protective factors against dropping out. Hope in future seems to be particularly important.
3. Global self-esteem was not found to be a protective factor.
4. Perceived school climate may be misleading if not examined prospectively. Only participants who dropped out prior to data collection rated school climate as significantly lower than other groups.

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Table 1A

F Values for Risk Factors which Differed Between Not-at-Risk and at-Risk Groups

Risk Factors	F value	p value
Academic		
Grade Point Average *	13.98	.000
Homework *	12.30	.000
Behavioral		
Average rating of conduct problems *	7.56	.000
Cutting days *	16.75	.000
Social/emotional		
Middle schools attended	2.77	.031
Time with friends	5.95	.000

* Also differed significantly among four at-risk groups

Table 1 -b

Significant Differences Among At-Risk Groups on Risk Factors

Groups	Confirmed Dropouts vs Predicted Dropouts	Confirmed Dropouts vs Predicted Graduates	Confirmed Dropouts vs Confirmed Graduates	Predicted Dropouts vs Predicted Graduates	Predicted Dropouts vs Confirmed Graduates	Predicted Graduates vs Confirmed Graduates
Grade Point Average		+	+		+	
Homework			+		+	
Average rating of conduct problems		+				
Cutting days		+	+		+	

+ = significant difference between groups

FIGURE 1: GROUP PROFILES ON RISK FACTORS

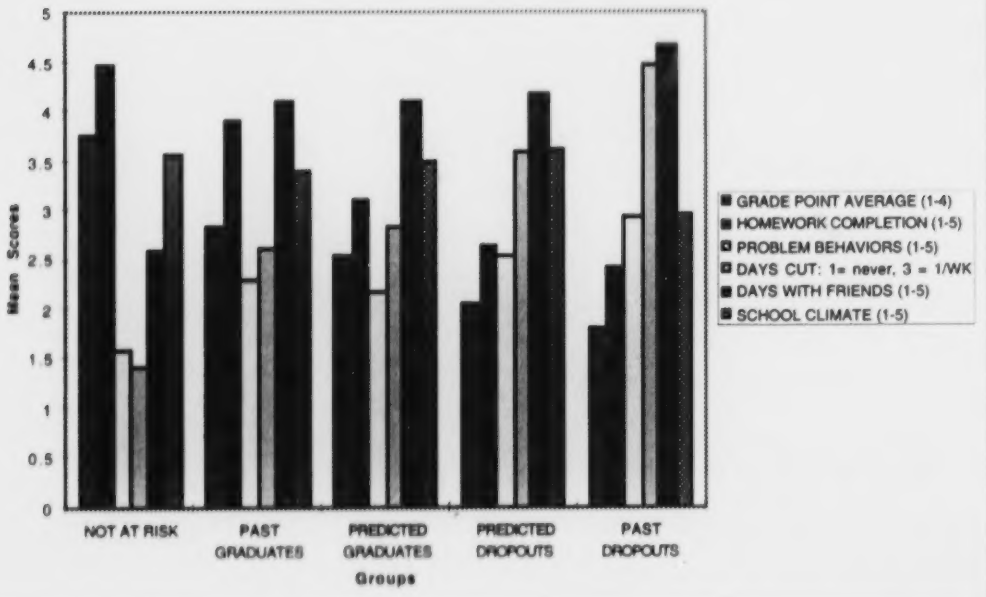

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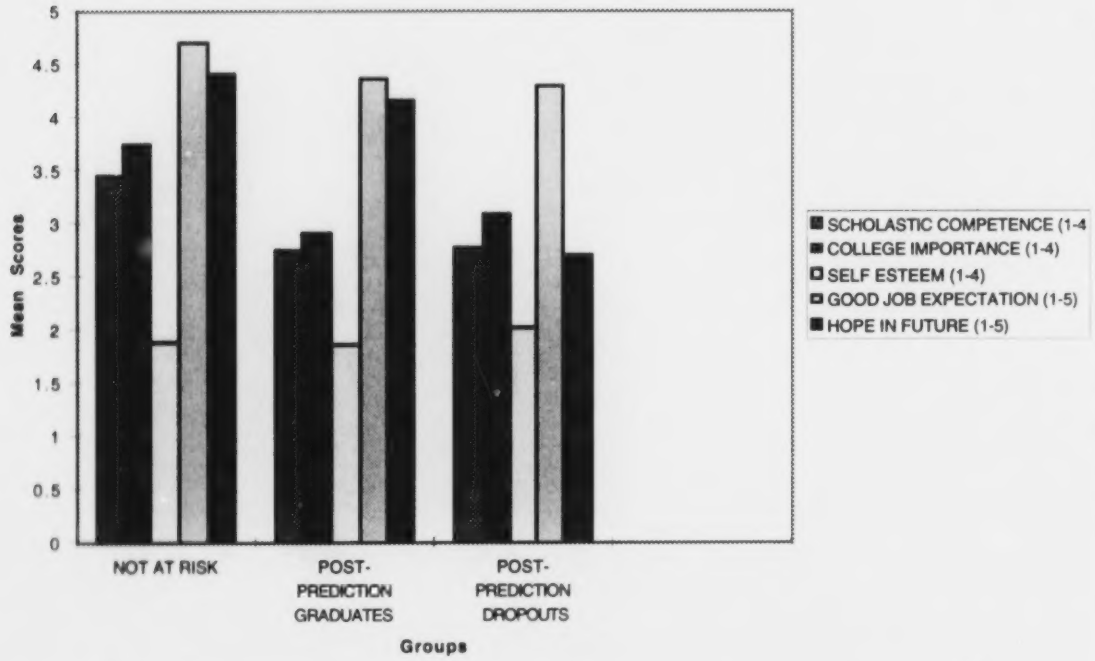
FIGURE 2: GROUP PROFILES ON PROTECTIVE FACTORS



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